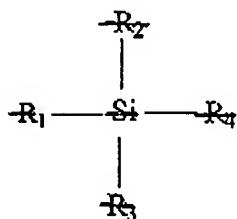


Please amend the specification as follows:

Page 11, please replace the paragraph beginning at line 21 and ending at Page 12, line 1, with the following paragraph, amended as indicated:

The subject SOG material is preferably produced in a non-aqueous media and may be heat cured or UV light cured, depending upon the exact structure of the material. The SOG material of the present invention is preferably produced from an alkyl substituted trialkoxysilane or an alkyl or dialkyl substituted dialkoxysilane, wherein the alkyl group has 1 to 8 methyl groups, represented by the formula:



R_1 =Alkyl (C_1 to C_8), Methacryloxypropyl, Acryloxy, Glycidyloxyalkyl

R_2 =Alkyl, Substituted Alkyl, Phenyl, Substituted phenyl, Methoxy, Ethoxy

R_3 =Methyl, Methoxy, Ethoxy, Alkoxy

R_4 =Methoxy, Ethoxy, alkoxy

The following is the full text of the amended paragraph from Page 11, beginning at line 21 and ending at line 25:

The subject SOG material is preferably produced in a non-aqueous media and may be heat cured or UV light cured, depending upon the exact structure of the material. The SOG material of the present invention is preferably produced from an alkyl substituted trialkoxysilane or an alkyl or dialkyl substituted dialkoxysilane, wherein the alkyl group has 1 to 8 methyl groups.

Page 12, please replace the paragraph beginning at line 2 and continuing to line 10, with the following paragraph amended as indicated:

The alkyl group may, for example, be replaced with a methacryloxypropyl, acryloxypropyl, or epoxy moiety, which improves the suitability of this SOG material for UV printing and patterning. ~~The trialkoxysilane may have one or more (preferably 1 to 3) C₁ to C₈ alkyl, methacryloxypropyl and/or alkoxy groups on the same molecule.~~ This provides a preferred SOG material with a higher degree of flexibility and improved patterning when using UV illumination. Reducing the number of alkoxy groups from 3 to 2 also reduces the cross-link density of the present SOG material and also improves its material flexibility, which allows this material to further tolerate the stress cause by extreme cold, heat, or mechanical shock.

The following is the full text of the amended paragraph from 12, beginning at line 2 and continuing to line 10:

The alkyl group may, for example, be replaced with a methacyloxypropyl, acryloxypropyl, or epoxy moiety, which improves the suitability of this SOG material for UV printing and patterning. This provides a preferred SOG material with a higher degree of flexibility and improved patterning when using UV illumination. Reducing the number of alkoxy groups from 3 to 2 also reduces the cross-link density of the present SOG material and also improves its material flexibility, which allows this material to further tolerate the stress caused by extreme cold, heat, or mechanical shock.

Page 12, please replace the paragraph beginning at line 12 and continuing to page 13, line 2, with the following paragraph amended as indicated:

A process is provided for producing the subject sol-gel spin-on glass (SOG) material of the present invention by: reacting an alkyl substituted trialkoxysilane or a an alkyl or dialkyl substituted dialkoxysilane with a silane diol, wherein said alkyl group has from 1 to 8 carbon atoms. The silane diol is preferably a diphenylsilanediol, a 1,3-Bis (3-hydroxypropyl) tetramethoxysilane, a 1,3-Bis (4-hydroxybutyl) tetramethylsilane, a fluorinated silane diol, or a mixture of one or more of these silane diols. The alkyl group may be replaced with a methacryloxypropyl, acryloxypropyl, or epoxy moiety. The alkyl trialkoxysilane may have one ~~or two~~ C₁ to C₈ alkyl, methacryloxypropyl and/or alkoxy groups on the same molecule and the alkyl or dialkyl substituted dialkoxysilane may have one or more ~~(preferably 1 to 3)~~ C₁ to C₈ alkyl, methacryloxypropyl and/or alkoxy groups on the same molecule. The process may further comprise adding an inorganic or organic dopant, wherein the dopant preferably comprises a phosphor dopant (such as a YAG base phosphor, ~~or a~~ moisture sensitive phosphor) nano-particles, or an organic material such as an organic dye or a metal complex).

The following is the full text of the amended paragraph from 12, beginning at line 12 and continuing to page 13, line 2:

A process is provided for producing the subject sol-gel spin-on glass (SOG) material of the present invention by: reacting an alkyl substituted trialkoxysilane or an alkyl or dialkyl substituted dialkoxysilane with a silane diol, wherein said alkyl group has from 1 to 8 carbon atoms. The silane diol is preferably a diphenylsilanediol, a 1,3-Bis (3-hydroxypropyl) tetramethoxysilane, a 1,3-Bis (4-hydroxybutyl) tetramethylsilane, a fluorinated silane diol, or a mixture of one or more of these silane diols. The alkyl group may be replaced with a methacryloxypropyl, acryloxypropyl, or epoxy moiety. The alkyl trialkoxysilane may have one C₁ to C₈ alkyl, methacryloxypropyl and/or alkoxy groups on the same molecule and the alkyl or dialkyl substituted dialkoxysilane may have one or more C₁ to C₈ alkyl, methacryloxypropyl and/or alkoxy groups on the same molecule. The process may further comprise adding an inorganic or organic dopant, wherein the dopant preferably comprises a phosphor dopant (such as a YAG base phosphor, moisture sensitive phosphor nano-particles, or an organic material such as an organic dye or a metal complex).